

RESIDUE MANAGEMENT, MULCH TILL

PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service—Practice Code 345



RESIDUE MANAGEMENT, MULCH TILL

This practice is managing crop residue on a year-round basis to provide an acceptable erosion rate, conserve moisture, and maintain or improve soil tilth.

PRACTICE INFORMATION

This practice generally applies to cropland, but may also be used on other areas where field crops are grown such as wildlife or recreation lands.

Mulch tillage is a term used when referring to noninversion tillage such as chiseling and disk harrowing to partially incorporate organic material left on the soil surface. Mulch tillage includes at least the following:

- Uniformly spreading the residue on the soil surface to accommodate planting the following crop
- Using noninversion tillage tools that only partially incorporate surface organic material
- Planning the number, sequence, and timing of tillage operations to achieve the prescribed amount of surface residue needed to accomplish the objectives of the practice

- Using planting equipment designed to operate in high residue situations
- Minimizing removal of organic residue by burning, baling or grazing

The benefits of this practice are significant. Soil slowly but steadily improves when erosion is reduced and organic matter increases. Soil tilth improves and productivity increases as the constant supply of organic material left on the soil surface is decomposed by a healthy population of earth worms and other organisms.

COMMON ASSOCIATED PRACTICES

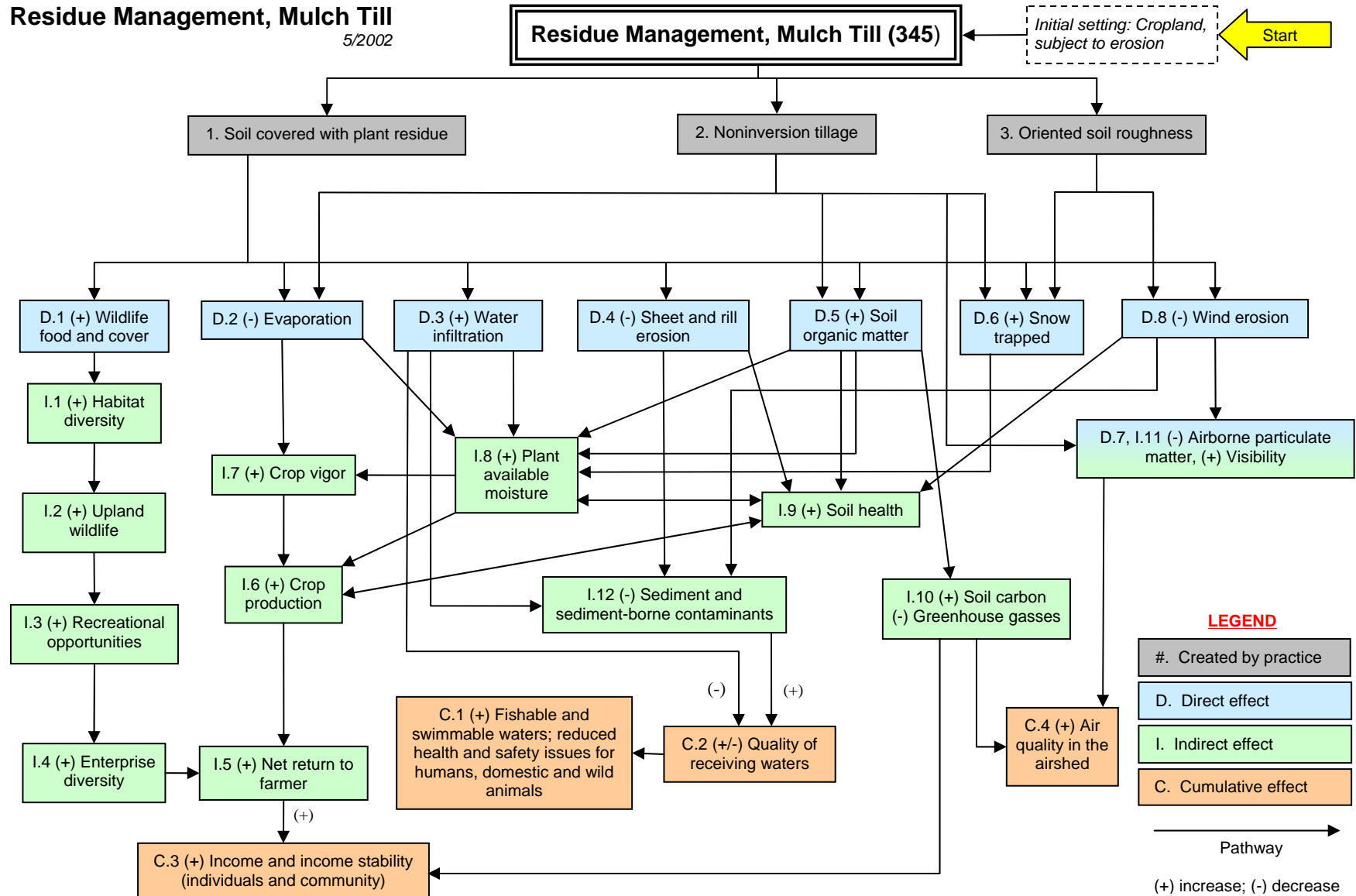
Residue Management Mulch Till is commonly used in a Conservation Management System with practices such as Conservation Crop Rotation (328), Nutrient Management (590), Pest Management (595), and Irrigation Water Management (449).

For more information, refer to the practice standard in the NRCS Field Office Technical Guide and associated specifications and design criteria.

The following page identifies the effects expected to occur when this practice is applied. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. All appropriate local, State, Tribal, and Federal permits and approvals are the responsibility of the landowner and are presumed to have been obtained. Users are cautioned that these effects are estimates that may or may not apply to a specific site.

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Note: Effects are qualified with a plus (+) or minus (-). These symbols indicate only an increase (+) or a decrease (-) in the effect upon the resource, not whether the effect is beneficial or adverse.

The diagram above identifies the effects expected to occur when this practice is applied according to NRCS practice standards and specifications. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. All appropriate local, State, Tribal, and Federal permits and approvals are the responsibility of the landowners and are presumed to have been obtained. All income changes are partially dependent upon market fluctuations which are independent of the conservation practices. Users are cautioned that these effects are estimates that may or may not apply to a specific site.